



# State of Utah

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DIVISION OF OIL, GAS AND MINING

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January 27, 1994

TO: Minerals File

FROM: Travis Jones, Reclamation Hydrologist *TWJ*  
Tony Gallegos, Reclamation Engineer *aa*

RE: Site Inspection, Kennecott Utah Copper (KUC), Tailings Expansion Project, M/035/015, Salt Lake County, Utah

Date of Inspection: January 13, 1994  
Time of Inspection: 1:30-3:30 P.M.  
Conditions: Partly Cloudy, Cool  
Participants: Don Deines, Pat Lorello, Laura Delaganza, Ed Culman, KUC; Morrison Knudsen Corporation; Obby Davidson, DTA; Holland Shepherd, Travis Jones, Tony Gallegos, and Wayne Hedberg, DOGM

Purpose of Inspection: To get a general overview of the tailings expansion proposal and tour the tailings facility to view the proposed expansion areas.

Upon arrival we were given a briefing of the tailings expansion project. Construction is proposed to begin in 1995; this allows one year for permitting.

The first phase of the expansion project involves relocation of utilities to a corridor near Interstate-80. Also, a visual screen of trees will be planted near the Interstate during the first phase of construction. The second phase of construction involves relocation of the railroad to a new alignment parallel and near to the Interstate. The new railroad alignment will intersect the old alignment near the slag pile at the smelter. Surface water diversions, improvements to the sedimentation pond, and construction of a blanket drain, toe ditch, and starter dike are included in the third phase of construction. The construction of the blanket drain and railroad realignment will use up most of the slag pile. The purpose of the toe ditch is to collect any leakage and runoff from the new tailings. The north branch of the C7 canal will be re-routed around the northeast border of the tailings expansion, but still discharge



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into the Great Salt Lake in the same place. KUC plans to reclaim the existing tailings impoundment in a series of cells. The coarse fraction of tailings will be used to construct the step off sections used in reclamation of the existing impoundment. This may possibly begin in 1997. This phased reclamation and construction of the new impoundment will allow KUC to maintain their tailings reclaim water system.

The tailings expansion area is lined with 10-15 feet of naturally occurring Bonneville clays. Much of the lands for the expansion are old salt evaporation ponds formerly operated by Morton Salt. Therefore, topsoil salvage in the evaporation pond area will be limited or nonexistent. However, it appears that salvageable topsoil exists in the northeast quadrant of the tailings expansion area. This area contains considerable vegetation compared to the evaporation ponds. The new impoundment dike slopes will be at an angle of 4:1.

After the meeting we drove around the existing impoundment. During our inspection, wick drains were being installed within the northeastern portion of the tailings material to relieve pore pressures and aid in dewatering. During the drive we saw several different groups of deer on the tailings impoundment including a group of three bucks.

The smelter water treatment ponds (adjacent to the tailings impoundment on the western side) will be eliminated as part of the new smelter facility. The sludge from the ponds will be stabilized and treated to adjust the pH, and then placed in the existing tailings impoundment.

jb  
cc: Don Deines, KUC  
M035015